

NAME:

ID NUMBER:

SECTION:

### OBJECTIVES

This lab aims to familiarize the students with the principles graphical user interface (GUI) programming in Matlab. Students will learn how to create GUIs, add different types of controls and define their behaviors in their callback routines.

### PROBLEMS

Create a directory on the desktop and name it with your student ID number. Make sure to solve all problems in the lab. The engineers will grade your work by the end of lab session.

1. Download the files for the example `guiExample` from the course website and modify it such that:
  - a) The user can change the frequency and phase shift of the sine and cosine functions. The frequency and phase shift are specified through two textboxes.
  - b) The user can choose the color to plot the function. The colors to be used are: red, blue, and green. The default plotting color is red.
  - c) The plotted function and its color changes as soon as the user changes his selection from the popmenus.

Hint:

- In the `plotButton_Callback` function, add the code that reads the user selection from the menu, and then specify the line specification in the plot command.
- After adding the code in the previous step, you can achieve the instantaneous change in the plotted function and its color by calling the `plotButton_Callback` function from the popmenu callback function to update the color upon user selection.

<b>Lab engineer comments</b>	
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